

What is claimed is:

1. An inter-processor communication method for a mobile communication system, the method comprising the steps of:

5 (a) receiving a message transmission request from a user, said request including a message and a destination address of said message;

(b) determining whether any one of currently existing sockets, whose file descriptors are stored in a socket management database, is connected to said destination address; and

10 (c) sending a connection request to a connection manager in order to be connected to a TCP (transmission control protocol) layer, if it is determined in the step (b) that none of said existing sockets are connected to said destination address.

15 2. The method of claim 1, further comprising the step of sending said message to said TCP layer if it is determined in the step (b) that any one of said existing sockets is connected to said destination address.

20 3. The method of claim 1, further comprising the steps of:

creating a new socket connected to said destination address and attempting to be connected to said TCP layer; and

storing a new file descriptor of said new socket in
said database if said attempt is succeeded.

4. The method of claim 3, further comprising the step of
5 newly forming a receiving module for said new socket.

5. The method of claim 1, wherein said user is
connectionless-oriented.

10 6. The method of claim 1, further comprising the step of
informing said user of an incomplete message transmission, if not
connected to said TCP layer for a given period of time.

15 7. An inter-processor communication apparatus for a mobile
communication system, the apparatus comprising:

16 a socket management database storing file descriptors
of currently existing sockets;

17 a message-transmitting module receiving a message
transmission request from a user, said request including a
20 message and a destination address of said message, said module
further sending a connection request in order to be connected to
a TCP (transmission control protocol) layer if none of said
existing sockets are connected to said destination address; and

a connection manager creating a new socket connected to said destination address and attempting to connect said module with said TCP layer after receiving said connection request from said module.

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8. The apparatus of claim 7, wherein said module sends said message to said TCP layer if any one of said existing sockets is connected to said destination address.

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9. The apparatus of claim 7, wherein said manager stores a new file descriptor of said new socket in said database if said attempt is succeeded.

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10. The apparatus of claim 9, wherein said manager forms a receiving module after storing said new file descriptor.

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11. The apparatus of claim 7, wherein said manager waits to receive another connection request if said attempt is not succeeded.

12. The apparatus of claim 7, wherein said module adds a message header to said message, said header including a message header indicator, a message length, a source address, said destination address, and a message identifier.

13. The apparatus of claim 12, wherein said module sends said message together with said header to said TCP layer using said new socket.

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14. The apparatus of claim 7, wherein said user is connectionless-oriented.